



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,576	12/01/2003	Alan Roth	14539	8653
293	7590	12/20/2005		
Ralph A. Dowell of DOWELL & DOWELL P.C. 2111 Eisenhower Ave Suite 406 Alexandria, VA 22314			EXAMINER MCLEAN MAYO, KIMBERLY N	
			ART UNIT 2187	PAPER NUMBER

DATE MAILED: 12/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/724,576	ROTH ET AL.
	Examiner	Art Unit
	Kimberly N. McLean-Mayo	2187

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 01 December 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1,2 and 5 is/are rejected.
- 7) Claim(s) 3 and 4 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 01 December 2003 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

1. The enclosed detailed action is in response to the Application submitted on December 1, 2003.

Claim Objections

2. Claims 3-4 are objected to because of the following informalities:

Claim 3, line 7 should state, “storing in a register”.

Claim 4, line 8 should state, “stored in the register”.

Claim 4, line 9 should state, “forwarded from a sub-block in a previous column”.

Claim 4, line 11 should state, “forward to a sub-block in a next”.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-2 are rejected under 35 U.S.C. 102(e) as being anticipated by Regev (PGPUB: US 2004/0128440).

Regarding claim 1, Regev discloses a priority encoder (PE) for a CAM comprising a plurality of PE blocks, each receiving a plurality of match results corresponding to data entries in a

corresponding data array block (Figure 1, Reference 110; Figure 2, Reference 110; Figure 6) and for determining an address of a highest priority data entry bases on a physical location in the data array block during a CAM search-and-compare operation (section 0025); a register for storing a user defined priority value assigned to each PE block (section 0031, lines 1-8); and means for evaluating priority values and the address determined by the plurality of PE blocks to select a PE block having the highest priority data entry (section 0025).

Regarding claim 2, Regev discloses a priority encoder including a plurality of stages, the PE blocks being a first stage of the PE (first stage -> Figure 1, Reference 110; second stage -> Figure 1, Reference 125; stages shown in Figure 6).

5. Claim 5 is rejected under 35 U.S.C. 102(e) as being anticipated by Ng (USPN: 6,700,809).

Ng discloses a method for inserting priority data in a CAM having a plurality of data array blocks, the method comprising determining the priority of the data to be inserted relative to the priority of the data stored in the CAM (C 6, L 14-28; the system stores the priority value and thus it is evident that the system must determine the value since the system is able to store the value); providing a priority value register associated with each of the blocks (Figure 3, Reference 132, PRI, the storage cells containing the PRI value is the PRI register); determining a free block for insertion of the data and writing the data to the block (C 21, L 36-40); and updating the priority value registers to reflect the relative priority of the inserted data (inherent; C 6, L 14-28 – the system stores the entries either in ascending priority or descending priority and thus it is evident

that the register values must indicate their relative ascending or descending priority values when a new entry is added).

Allowable Subject Matter

6. Claims 3-4 would be allowable if rewritten or amended to overcome the above claim objections, set forth in this Office action.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Pereira (USPN: 6,687,785) – programmable priority encoder.

Regev – PGPUB: US 2003/0016575 – segmented priority encoder.

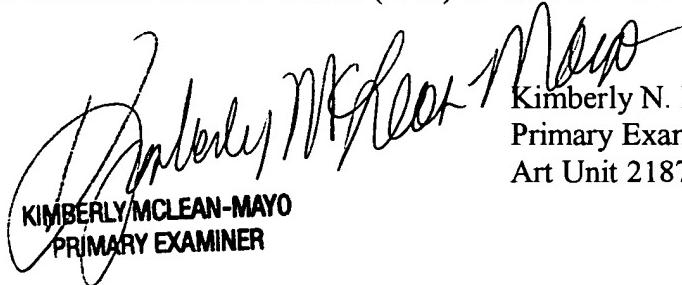
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly N. McLean-Mayo whose telephone number is 571-272-4194. The examiner can normally be reached on Mon (10-4), Tues, Thu (10-2), Fri (10-6:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on 571-272-4201. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2187

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KNM



KIMBERLY MCLEAN-MAYO
PRIMARY EXAMINER

Kimberly N. McLean-Mayo
Primary Examiner
Art Unit 2187

November 28, 2005